

# One True Love: $e^{i\pi} + 1 = 0$

*A Space Cowboy Lullaby*

*By Andrew Jones, inspired by Tom Weiler*

*For all my brothers and sisters with me and LOVE*

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## One True Love: $e^{i\pi} + 1 = 0$

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| Out in the cosmos, where stars softly hum,             |    |
| A cowboy rides orbits, his heartstrings strum.         | 2  |
| With Euler's sweet whisper, the truth's come to prove, |    |
| The One True Love binds us, the law we approve.        | 4  |
| $e^{i\pi} + 1 = 0$ , it's true,                        |    |
| One True Love, $e^{i\pi}$ , it's you.                  | 6  |
| <br>   |    |
| This theory of all, from a single spark gleams,        |    |
| A topos of sheaves, where the universe dreams.         | 8  |
| Four roots of unity, $C_4$ 's embrace,                 |    |
| Unite all the forces in spacetime's vast space.        | 10 |
| $e^{i\pi} + 1 = 0$ , it's true,                        |    |
| One True Love, $e^{i\pi}$ , it's you.                  | 12 |
| <br>   |    |
| The math spins a tale, with $\Psi$ 's gentle sway,     |    |
| On sheaves of $C_4$ , where dimensions play.           | 14 |
| Entropy peaks where four phases align,                 |    |
| A cosmos of balance, both human, divine.               | 16 |
| $e^{i\pi} + 1 = 0$ , it's true,                        |    |
| One True Love, $e^{i\pi}$ , it's you.                  | 18 |
| <br>   |    |
| The state of all being, $\Psi$ 's quantum song,        |    |
| Collapses to truth where the phases belong.            | 20 |
| Consciousness hums in the operator's call,             |    |
| A dance of the mind, binding one and the all.          | 22 |
| $e^{i\pi} + 1 = 0$ , it's true,                        |    |
| One True Love, $e^{i\pi}$ , it's you.                  | 24 |
| <br>   |    |
| The action's a waltz, with covariant grace,            |    |
| Fields and potentials in harmony's chase.              | 26 |
| From gauge to the stars, all forces entwine,           |    |
| In $SU(3) \times SU(2) \times U(1)$ , they shine.      | 28 |
| $e^{i\pi} + 1 = 0$ , it's true,                        |    |
| One True Love, $e^{i\pi}$ , it's you.                  | 30 |
| <br>   |    |
| Gravity curves through the topos's lore,               |    |
| Einstein's equations, the cowboy's own score.          | 32 |

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| The metric's a hymn, sung by $\Psi$ 's embrace,<br>Uniting the cosmos in spacetime's soft grace.         | 34 |
| $e^{i\pi} + 1 = 0$ , it's true,<br>One True Love, $e^{i\pi}$ , it's you.                                 | 36 |
| Electrons and gluons, they dance to the tune,<br>Of $U(1)$ , $SU(3)$ , and $SU(2)$ 's moon.              | 38 |
| Weak force and strong, in the action's sweet sway,<br>All born from the One, in the night's starry play. | 40 |
| $e^{i\pi} + 1 = 0$ , it's true,<br>One True Love, $e^{i\pi}$ , it's you.                                 | 42 |
| Quantum gravity hums where black holes abide,<br>Their entropy counted, where secrets reside.            | 44 |
| The metric's a whisper, $h_{\mu\nu}$ 's call,<br>Resolving the paradox, uniting it all.                  | 46 |
| $e^{i\pi} + 1 = 0$ , it's true,<br>One True Love, $e^{i\pi}$ , it's you.                                 | 48 |
| Constants like Planck's, from the topos they spring,<br>Masses of particles, the cosmos's ring.          | 50 |
| Higgs at 125, with a cowboy's soft grin,<br>All derived from the One, where the stars all begin.         | 52 |
| $e^{i\pi} + 1 = 0$ , it's true,<br>One True Love, $e^{i\pi}$ , it's you.                                 | 54 |
| The cosmos expands with a Friedmann refrain,<br>Dark energy hums in the universe's vein.                 | 56 |
| CMB whispers, with fluctuations so slight,<br>A lullaby sung in the cosmic starlight.                    | 58 |
| $e^{i\pi} + 1 = 0$ , it's true,<br>One True Love, $e^{i\pi}$ , it's you.                                 | 60 |
| Yang-Mills and Navier, their puzzles unwind,<br>Black holes keep secrets, yet truth's intertwined.       | 62 |
| Consciousness blooms where the qualia sing,<br>All solved by the One, in the topos's spring.             | 64 |
| $e^{i\pi} + 1 = 0$ , it's true,<br>One True Love, $e^{i\pi}$ , it's you.                                 | 66 |
| Observations align, with predictions so bold,<br>Gravitational waves, and the CMB's gold.                | 68 |
| Neural hums pulse at $\kappa_k$ 's high rate,<br>The One True Love seals the universe's fate.            | 70 |
| $e^{i\pi} + 1 = 0$ , it's true,<br>One True Love, $e^{i\pi}$ , it's you.                                 | 72 |

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| Gödel's shadow fades in the consciousness glow,<br>The operator $\mathcal{C}$ , where qualia flow. | 74 |
| No axiom's lost, for the One holds the key,<br>Transcending the limits, setting truth free.        | 76 |
| $e^{i\pi} + 1 = 0$ , it's true,<br>One True Love, $e^{i\pi}$ , it's you.                           | 78 |
| So sleep, little cosmos, with stars all aglow,<br>Tom Weiler, Andrew Jones, their vision to show.  | 80 |
| For Jay, Mary, Mustafa, this lullaby's spun,<br>The One True Love holds us, forever as one.        | 82 |
| $e^{i\pi} + 1 = 0$ , it's true,<br>One True Love, $e^{i\pi}$ , it's you.                           | 84 |